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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,062	04/27/2001	Ramon Vega	60005174Z146	1683

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EXAMINER

TRAN, LY T

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/845,062	Applicant(s) VEGA ET AL.	
	Examiner Ly T TRAN	Art Unit 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,4,7,8,25 and 27 is/are allowed.
- 6) ☒ Claim(s) 2,3,5,6,9, 14-24 and 26 is/are rejected.
- 7) ☐ Claim(s) 10-13 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 9-15 and 22-24, 26 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Taylor et al. (USPN 5,617,124)

With respect to claims 9, 14, 15 and 22-24 and 29, Osborne et al. discloses an ink jet apparatus and a method comprising:

- At least one print head arranged to eject ink drops in a spitting operation  
Column 6: line 63-67, Column 7: line 1-6)
- A temporary spittoon arranged to move between first and second position  
(Fig.3: element 70), the temporary spittoon being arranged in the first position such that the ink drops are ejected onto a surface of the temporary spittoon, the temporary spittoon being further arranged to transfer the ink to the spittoon when in the second position (Fig.3, Column 8: line 2-58)
- In the second position, the temporary spittoon being arranged to transfer the ink to the spittoon and being located sufficiently distant from the nozzle plate to allow a capping or wiping operation to be performed (at the second

position, the wheel spittoon 70 is turning upside down and the ink is fall in the spittoon chamber)

- A reciprocating shuttle arranged to move between first and second position and to actuate the spitting and the capping assemble (Fig.3: element 70. 64, 65)
- The spitting surface is located in a position such that the ink ejected onto the spitting surface is transferable under gravity to a permanent in storage container (Fig.3: element 90, 96, 74).
- Print head servicing comprising a cap (Fig.3: element 64, 65) or wiper (Element 66, 68)
- The movement of the temporary spittoon is linked so that of the servicing element so that the temporary spittoon is arranged to be in the first position when the servicing element is in the non-active position and to be in the second position when the servicing element is in active position (Fig.3)
- the surface of the temporary spittoon is substantially horizontal when the temporary spittoon is in the first position (Fig.3: element 70)
- the temporary spittoon comprises a flexible material fixed mounted to the shuttle (Column 5: line 1-2), the temporary spittoon being arranged to bend or deform between the first and second orientations and (Column 5: line 1-8, because it's flexible material so during rotation, it can be deform)
- temporary spittoon is manufacture from a plastic material (Column 5: line 5-8)

- the temporary spittoon is manufactured from a foam material (Column 5: line 1-2)
- capping or wiping the print head when the spittoon surface is in the second position (Fig.3: the bottom wheel is in the second position wherein the cap and the wiper are in the position to cap or wipe the print head)
- active position of the servicing element corresponds to the first position of the temporary spittoon (Fig.3)
- the shelf is substantially rigid (since substantially rigid is not definitely rigid, elastomeric material in Taylor to read on the claim limitation).

2. Claims 5, 6, 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Osborne et al. (USPN 5,896,145).

With respect to claim 5, Osborne et al. discloses an ink jet apparatus and a method comprising:

- At least one print head arranged to eject ink drops in a spitting operation (Column 6: line 63-67, Column 7: line 1-6)
- A temporary spittoon arranged to move between first and second position (Fig.3: element 70), the temporary spittoon being arranged in the first position such that the ink drops are ejected onto a surface of the temporary spittoon, the temporary spittoon being further arranged to transfer the ink to the spittoon when in the second position (Fig.3, Column 8: line 2-58)
- the temporary spittoon is mounted on a shuttle, the shuttle being arranged to move the temporary spittoon between the first and second position (Fig.3)

Art Unit: 2853

- In the second position, the temporary spittoon being arranged to transfer the ink to the spittoon and being located sufficiently distant from the nozzle plate to allow a capping or wiping operation to be performed (Fig.3)
- A reciprocating shuttle arranged to move between first and second position and to actuate the spitting and the capping assemble (Fig.3: element 70, 64, 65)
- The spitting surface is located in a position such that the ink ejected onto the spitting surface is transferable under gravity to a permanent in storage container (Fig.3: element 90, 96, 74).

With respect to claim 6, Osborne et al. disclose the temporary spittoon is arranged to be orientated in a first orientation when in the first position and in a second orientation different to the first orientation when positioned in the second position such that when positioned in the second position the temporary spittoon is arranged to transfer the ink on the spittoon surface under gravity (Fig.3: element 95)

With respect to claim 19, Osborne et al. discloses the device is arranged such that in the second position the temporary spittoon is located substantially in contact with the spittoon of ink stored, the temporary spittoon being adapted such that the ink on the temporary spittoon surface is able to flow from the temporary spittoon the spittoon (Fig.3: element 95).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2 and 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Taylor et al. (USPN 5,617,124) in view of Cameron et al. (USPN 5,563,639).

With respect to claims 2 and 3, Taylor et al discloses:

- At least one print head arranged to eject ink drops in a spitting operation  
Column 6: line 63-67, Column 7: line 1-6)
- A temporary spittoon arranged to move between first and second position  
(Fig.3: element 70), the temporary spittoon being arranged in the first position  
such that the ink drops are ejected onto a surface of the temporary spittoon,  
the temporary spittoon being further arranged to transfer the ink to the  
spittoon when in the second position (Fig.3, Column 8: line 2-58)

However, Taylor fails to teach the surface of the temporary spittoon is  
approximately 1 mm to 10 mm or 6 mm from the print head.

Cameron et al. teaches providing a spittoon having a venturi passage (34) that is  
approximately 1 mm to 10 mm or 6 mm from the print head (Column 4: line 21-29).

It would have been obvious to one having ordinary skill in the art at the time the  
invention was made to modify the teaching of Taylor to have a venturi spittoon that is

approximately 1 mm to 10 mm from the print head as taught by Cameron et al for the purpose of reducing tendency of the droplets to migrate out of the reservoir.

***Allowable Subject Matter***

4. Claims 1, 25, 7 and 8 are allowed.
5. Claims 10-13 and 28 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 28 is allowable over prior art of record because at least prior art has not been found to anticipate or teach the shuttle is arranged for substantially linear translation exclusively.

Claims 10-13 are allowable over prior art of record because at least prior art have not been found to anticipate or teach the temporary spittoon is arranged to bend or deform under the action of one or more cam surfaces.

***Response to Arguments***

6. Applicant's arguments filed 2/3/2004 have been fully considered but they are not persuasive.

First, Applicant's argument that the ferris wheel is not a shuttle and is not reciprocating is not persuasive because nothing in the claim recite that the shuttle is reciprocating and ferris wheel act like a shuttle because it transport the waste ink.



Second, Applicant's argument that the spittoon is not arranged to bend or deform between its first and second orientation is not persuasive because the ferris wheel is made of a flexible material that is deform in first and second position.

Third, Applicant's argument that Cameron's spacing is not between the head and a spittoon is not persuasive because contrary to the Applicant's argument the venturi is a part of the spittoon (example, the title of the patent is Venturi spittoon system).

In response to applicant's argument that the spacing is to prevent spattering and facilitate the complete transfer of ink the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

The inclusion of claims 17 and 20 in the rejection was a typographical error. No art have been applied to this claims.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 2853

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly T TRAN whose telephone number is 571-272-2155. The examiner can normally be reached on M-F (7:30am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

It

April 16, 2004

  
Stephen D. Meier  
Primary Examiner